

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-024679**Date Inspected:** 18-Jun-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	AN QinXiang		
<b>Inspected CWI report:</b>	Yes	No	N/A
<b>Electrode to specification:</b>	Yes	No	N/A
<b>Qualified Welders:</b>	Yes	No	N/A
<b>Approved Drawings:</b>	Yes	No	N/A

<b>CWI Present:</b>	Yes	No
<b>Rod Oven in Use:</b>	Yes	No N/A
<b>Weld Procedures Followed:</b>	Yes	No N/A
<b>Verified Joint Fit-up:</b>	Yes	No N/A
<b>Approved WPS:</b>	Yes	No N/A
<b>Delayed / Cancelled:</b>	Yes	No N/A

**Bridge No:** 34-0006**Component:** Orthotropic Box Girder( OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Manoj Prabhune was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector randomly observed the following work in progress:

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NDT:

Segment 14 West

This QA Inspector performed Magnetic Particle Testing (MPT) Verification Inspection of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report on this date. The members are identified as Orthotropic Box Girder (OBG) components. The weld designations Verified are as follows.

SEG3020E-271, 280, 283, 286

SEG3020E-304, 234

SEG3020D-250, 262

SEG3020AB-026, 027

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SEG3020AB-030, 031, 048, 049, 050, 051, 122, 123

During random witness of weld joints is identified as SEG3020AB-124 this QA observed Longitudinal Linear Indication on the welds. This QA along with ABF QA MT Technicians marked the affected areas and informed ZPMC Quality Control (QC) CWI indentified as Mr. An Qing Xiang of this issue. Mr. An Qing Xiang informed this QA that the cracks would be corrected in a manner compliant with the contract documents. This QA Inspector also informed to Lead QA Inspector of the issue. See attached photos for further details.

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### WELDING:

#### Segment 14 West

This QA Inspector observed ZPMC qualified welding personnel identified as 066261 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG3020H-162 ; located On Orthotropic Box Girder (OBG) Bottom Plate to I-Rib Fillet Weld; ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Zhu Lin was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2112-FCM-1.

#### Segment 14 West

This QA Inspector observed ZPMC qualified welding personnel identified as 067904 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG3020R-186 ; located On Orthotropic Box Girder (OBG) AP3020A to Floor Beam CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Zhu Lin was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2213-TC-U4b-FCM-1.

#### Segment 14 West

This QA Inspector observed ZPMC qualified welding personnel identified as 066734 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG3020M-064 ; located On Orthotropic Box Girder (OBG) AP3020A to Floor Beam CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Zhu Lin was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2213-TC-U4b-FCM-1.

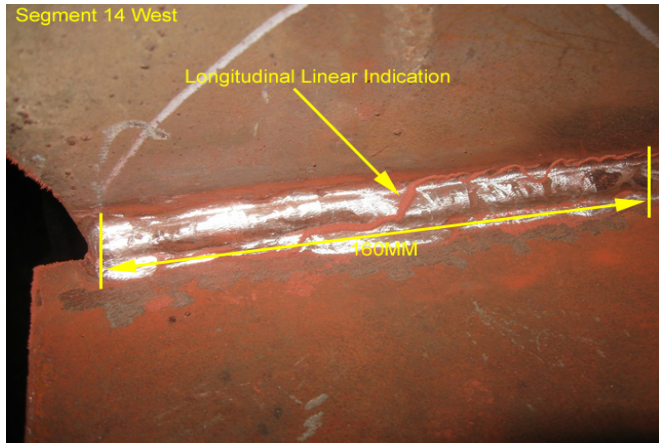
Unless otherwise noted, all work observed on this date appeared to generally comply with the applicable contract documents.

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## Summary of Conversations:

No significant conversations were reported on this date.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey - 15000026784, who represents the Office of Structural Materials for your project.

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**Inspected By:** Prabhune,Manoj

Quality Assurance Inspector

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**Reviewed By:** Peterson,Art

QA Reviewer